

## AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph on page 11, line 31 to page 12, line 16 of the application, as filed, with the following paragraph.

Two animal models were used for a comparative study. The first tumor model was established with a MCF-7 breast tumor line, and the second tumor model was established with a MCF-7 derived tumor cell line, MCF-7/VEGF165. Before injection of any type of RNAi, we observed a much more aggressive tumor growth for MCF-7/VEGF165 induced tumor than that induced by MCF-7 itself. This behavior has been reported and represents the role of VEGF165 as a tumor growth enhancer through an angiogenesis promoting activity. To achieve a VEGF specific down regulation, 10 µg of either siRNA (21 nt) derived from hVEGF gene or siRNA derived from LacZ gene was directly injected into xenografted MCF-7/VEGF165 tumor that over-expressing human VEGF165 in nude mice. Two siRNA (21 nt) sequences were designed to target human VEGF165 gene. VEGF<sub>RNAi</sub>A sequence is 5'-ucgagacccugguggacauuu-3' (**SEQ ID NO: 1**) and VEGF<sub>RNAi</sub>B sequence is 5'-ggccagcacauaggagagauu-3' (**SEQ ID NO: 2**). Both siRNAs were double-stranded with two UU overhang on both ends. For intratumoral injection, 5 µg of each of the two siRNAs makes up 10 µg of the VEGF specific siRNAs. In addition, the same amount of dsRNA (10 µg) targeting VEGF165 gene was also introduced by the same delivery method. Electric pulses were applied to tumor immediately after siRNA injection as described above. A second siRNA administration was performed on day 7 post first RNAi administration. The tumor volume was measured as an indication of hVEGF gene silencing.

Please replace the paragraph on page 12, line 31 to page 13, line 14 of the application, as filed, with the following paragraph.

To illustrate the power of RNAi mediated gene silencing in effecting tumor growth by targeting endogenous tumor control gene, one *in vivo* study was carried out to silence mouse VEGFR2 gene in MCF-7 derivative tumor bearing nude mice. Two siRNAi were designed to target mouse VEGFR2 gene. VEGFR2<sub>RNAi</sub>A sequence is 5'-gcucagcacacagaaagacuu-3' (**SEQ ID NO: 3**) and

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VEGFR2<sub>RNAi</sub>B sequence is 5'-ugcggcguggugacaguauu-3' (**SEQ ID NO: 4**). Both siRNAs were double-stranded with two UU overhang on both ends. Five  $\mu$ g of each siRNA makes up 10  $\mu$ g for each delivery. Ten  $\mu$ g of siRNAi derived from mVEGFR2 or LacZ gene, or 10  $\mu$ g of pCILuc plasmid DNA, was directly injected into [[. ]]xenografted human MCF-7 derived tumor in nude mice. Electric pulses were applied to tumor immediately after siRNAs/DNA injection as described above. A second siRNAs/DNA administration was performed on day 7 post first administration. The tumor volume was measured as an indication of mVEGFR2 gene silencing. As demonstrated in Figure 5, tumors treated with siRNAs derived from mVEGFR2 gene grown significantly slower compared to tumors treated with pCILuc plasmid DNA or siRNAs derived from LacZ gene. LacZ siRNAs treatment did not inhibit tumor growth, therefore demonstrating that mVEGFR2 siRNAs specifically silenced mVEGFR2 gene in treated tumor and thus slow down tumor growth rate.

Please replace the paragraph on page 14, lines 8 to 19 of the application, as filed, with the following paragraph.

RNAi against targets can be successfully delivered using polymer-mediated delivery as shown by the results in Figure 16. RNAi directed against the target ICT1003 was delivered to tumor cells using a PolyTran reagent (histidine-lysine copolymer). Briefly, the methods and reagents described in WO01/47496 (which reference is incorporated herein in its entirety) were employed to deliver RNAi to the tumor model described above. GFP-siRNA was used as a control. As shown in Figure 16, RNAi directed against ICT1003 inhibited tumor growth compared to control. The results shown in Figure 16 were obtained using the branched reagent HK4b (described in WO01/47496) having the structure [(HK)<sub>4</sub>KGK(HK)<sub>4</sub>]<sub>4</sub>K<sub>3</sub> (**SEQ ID NO: 5**). The skilled artisan will recognize that other HK copolymers may be used and that other cationic polymers known in the art also may be used.